

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/582,301
Source: JFWP
Date Processed by STIC: 06/21/2006

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IFWP

RAW SEQUENCE LISTING

DATE: 06/21/2006

PATENT APPLICATION: US/10/582,301

TIME: 11:04:46

Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\06212006\J582301.raw

3 <110> APPLICANT: AGENCY FOR SCIENCE TECHNOLOGY AND RESEARCH
 5 <120> TITLE OF INVENTION: SARS CORONAVIRUS S PROTEINS AND USES THEREOF
 7 <130> FILE REFERENCE: 5463-2PCT
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/582,301
 C--> 10 <141> CURRENT FILING DATE: 2006-06-09
 12 <150> PRIOR APPLICATION NUMBER: 60/528,596
 13 <151> PRIOR FILING DATE: 2003-12-10
 15 <160> NUMBER OF SEQ ID NOS: 25
 17 <170> SOFTWARE: PatentIn Ver. 3.3
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 3765
 21 <212> TYPE: DNA
 22 <213> ORGANISM: SARS Coronavirus
 24 <400> SEQUENCE: 1
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 26 acttttgatg atgttcaagc tcctaattac actcaacata cttcatctat gagggggggt 120
 27 tactatcctg atgaaatttt tagatcagac actctttatt taactcagga tttatctctt 180
 28 ccattttatt ctaatgttac agggtttcat actattaatc atacgtttgg caaccctgtc 240
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 30 tgggtttttg gttctaccat gaacaacaag tcacagtcgg tgattattat taacaattct 360
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 33 ttcgagtaca tatctgatgc cttttcgctt gatgtttcag aaaagtcagg taattttaaa 540
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 35 caacctatag atgtagtctg tgatctacct tctggtttta acactttgaa acctattttt 660
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 43 ttttcaacct ttaagtgcta tggcgtttct gccactaagt tgaatgatct ttgcttctcc 1140
 44 aatgtctatg cagattcctt tgtagtcaag ggagatgatg taagacaaat agcgccagga 1200
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54 gtaagtgttaa ttacacctgg aacaaatgct tcactctgaag ttgctgttct atatcaagat 1800
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56 atatattcta ctggaaacaa tgtattccag actcaagcag gctgtcttat aggagctgag 1920
57 catgtcgaca cttcttatga gtgcgacatt cctattggag ctggcatttg tgctagttag 1980
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81 gatcctctgc aacctgagct tgactcattc aaagaagagc tggacaagta cttcaaaaaa 3420
82 catacatcac cagatgttga tcttggcgac atttcaggca ttaacgcttc tgcgtcaac 3480
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86 agttgttgca gttgcctcaa ggggtgcatg tcttggtggt cttgctgcaa gtttgatgag 3720
87 gatgactctg agccagttct caagggtgtc aaattacatt acaca 3765

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90 <210> SEQ ID NO: 2

91 <211> LENGTH: 1255

92 <212> TYPE: PRT

93 <213> ORGANISM: SARS Coronavirus

95 <400> SEQUENCE: 2

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99 Asp Arg Cys Thr Thr Phe Asp Asp Val Gln Ala Pro Asn Tyr Thr Gln
100             20             25             30
102 His Thr Ser Ser Met Arg Gly Val Tyr Tyr Pro Asp Glu Ile Phe Arg
103             35             40             45
105 Ser Asp Thr Leu Tyr Leu Thr Gln Asp Leu Ser Leu Pro Phe Tyr Ser
106             50             55             60
108 Asn Val Thr Gly Phe His Thr Ile Asn His Thr Phe Gly Asn Pro Val
109   65             70             75             80

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111 Ile Pro Phe Lys Asp Gly Ile Tyr Phe Ala Ala Thr Glu Lys Ser Asn
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114 Val Val Arg Gly Trp Val Phe Gly Ser Thr Met Asn Asn Lys Ser Gln
115      100      105      110
117 Ser Val Ile Ile Ile Asn Asn Ser Thr Asn Val Val Ile Arg Ala Cys
118      115      120      125
120 Asn Phe Glu Leu Cys Asp Asn Pro Phe Phe Ala Val Ser Lys Pro Met
121      130      135      140
123 Gly Thr Gln Thr His Thr Met Ile Phe Asp Asn Ala Phe Asn Cys Thr
124 145      150      155      160
126 Phe Glu Tyr Ile Ser Asp Ala Phe Ser Leu Asp Val Ser Glu Lys Ser
127      165      170      175
129 Gly Asn Phe Lys His Leu Arg Glu Phe Val Phe Lys Asn Lys Asp Gly
130      180      185      190
132 Phe Leu Tyr Val Tyr Lys Gly Tyr Gln Pro Ile Asp Val Val Arg Asp
133      195      200      205
135 Leu Pro Ser Gly Phe Asn Thr Leu Lys Pro Ile Phe Lys Leu Pro Leu
136      210      215      220
138 Gly Ile Asn Ile Thr Asn Phe Arg Ala Ile Leu Thr Ala Phe Ser Pro
139 225      230      235      240
141 Ala Gln Asp Ile Trp Gly Thr Ser Ala Ala Ala Tyr Phe Val Gly Asp
142      245      250      255
144 Leu Lys Pro Thr Thr Phe Met Leu Lys Tyr Asp Glu Asn Gly Thr Ile
145      260      265      270
147 Thr Asp Ala Val Asp Cys Ser Gln Asn Pro Leu Ala Glu Leu Lys Cys
148      275      280      285
150 Ser Val Lys Ser Phe Glu Ile Asp Lys Gly Ile Tyr Gln Thr Ser Asn
151      290      295      300
153 Phe Arg Val Val Pro Ser Gly Asp Val Val Arg Phe Pro Asn Ile Thr
154 305      310      315      320
156 Asn Leu Cys Pro Phe Gly Glu Val Phe Asn Ala Thr Lys Phe Pro Ser
157      325      330      335
159 Val Tyr Ala Trp Glu Arg Lys Lys Ile Ser Asn Cys Val Ala Asp Tyr
160      340      345      350
162 Ser Val Leu Tyr Asn Ser Thr Val Phe Ser Thr Phe Lys Cys Tyr Gly
163      355      360      365
165 Val Ser Ala Thr Lys Leu Asn Asp Leu Cys Phe Ser Asn Val Tyr Ala
166      370      375      380
168 Asp Ser Phe Val Val Lys Gly Asp Asp Val Arg Gln Ile Ala Pro Gly
169 385      390      395      400
171 Gln Thr Gly Val Ile Ala Asp Tyr Asn Tyr Lys Leu Pro Asp Asp Phe
172      405      410      415
174 Met Gly Cys Val Leu Ala Trp Asn Thr Arg Asn Ile Asp Ala Thr Ser
175      420      425      430
177 Thr Gly Asn Tyr Asn Tyr Lys Tyr Arg Tyr Leu Arg His Gly Lys Leu
178      435      440      445
180 Arg Pro Phe Glu Arg Asp Ile Ser Asn Val Pro Phe Ser Pro Asp Gly
181      450      455      460
183 Lys Pro Cys Thr Pro Pro Ala Leu Asn Cys Tyr Trp Pro Leu Asn Asp

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184 465          470          475          480
186 Tyr Gly Phe Tyr Thr Thr Thr Gly Ile Gly Tyr Gln Pro Tyr Arg Val
187          485          490          495
189 Val Val Leu Ser Phe Glu Leu Leu Asn Ala Pro Ala Thr Val Cys Gly
190          500          505          510
192 Pro Lys Leu Ser Thr Asp Leu Ile Lys Asn Gln Cys Val Asn Phe Asn
193          515          520          525
195 Phe Asn Gly Leu Thr Gly Thr Gly Val Leu Thr Pro Ser Ser Lys Arg
196          530          535          540
198 Phe Gln Pro Phe Gln Gln Phe Gly Arg Asp Val Ser Asp Phe Thr Asp
199 545          550          555          560
201 Ser Val Arg Asp Pro Lys Thr Ser Glu Ile Leu Asp Ile Ser Pro Cys
202          565          570          575
204 Ser Phe Gly Gly Val Ser Val Ile Thr Pro Gly Thr Asn Ala Ser Ser
205          580          585          590
207 Glu Val Ala Val Leu Tyr Gln Asp Val Asn Cys Thr Asp Val Ser Thr
208          595          600          605
210 Ala Ile His Ala Asp Gln Leu Thr Pro Ala Trp Arg Ile Tyr Ser Thr
211          610          615          620
213 Gly Asn Asn Val Phe Gln Thr Gln Ala Gly Cys Leu Ile Gly Ala Glu
214 625          630          635          640
216 His Val Asp Thr Ser Tyr Glu Cys Asp Ile Pro Ile Gly Ala Gly Ile
217          645          650          655
219 Cys Ala Ser Tyr His Thr Val Ser Leu Leu Arg Ser Thr Ser Gln Lys
220          660          665          670
222 Ser Ile Val Ala Tyr Thr Met Ser Leu Gly Ala Asp Ser Ser Ile Ala
223          675          680          685
225 Tyr Ser Asn Asn Thr Ile Ala Ile Pro Thr Asn Phe Ser Ile Ser Ile
226          690          695          700
228 Thr Thr Glu Val Met Pro Val Ser Met Ala Lys Thr Ser Val Asp Cys
229 705          710          715          720
231 Asn Met Tyr Ile Cys Gly Asp Ser Thr Glu Cys Ala Asn Leu Leu Leu
232          725          730          735
234 Gln Tyr Gly Ser Phe Cys Thr Gln Leu Asn Arg Ala Leu Ser Gly Ile
235          740          745          750
237 Ala Ala Glu Gln Asp Arg Asn Thr Arg Glu Val Phe Ala Gln Val Lys
238          755          760          765
240 Gln Met Tyr Lys Thr Pro Thr Leu Lys Tyr Phe Gly Gly Phe Asn Phe
241          770          775          780
243 Ser Gln Ile Leu Pro Asp Pro Leu Lys Pro Thr Lys Arg Ser Phe Ile
244 785          790          795          800
246 Glu Asp Leu Leu Phe Asn Lys Val Thr Leu Ala Asp Ala Gly Phe Met
247          805          810          815
249 Lys Gln Tyr Gly Glu Cys Leu Gly Asp Ile Asn Ala Arg Asp Leu Ile
250          820          825          830
252 Cys Ala Gln Lys Phe Asn Gly Leu Thr Val Leu Pro Pro Leu Leu Thr
253          835          840          845
255 Asp Asp Met Ile Ala Ala Tyr Thr Ala Ala Leu Val Ser Gly Thr Ala
256          850          855          860

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259 865                               870                               875                               880
261 Ala Met Gln Met Ala Tyr Arg Phe Asn Gly Ile Gly Val Thr Gln Asn
262                               885                               890                               895
264 Val Leu Tyr Glu Asn Gln Lys Gln Ile Ala Asn Gln Phe Asn Lys Ala
265                               900                               905                               910
267 Ile Ser Gln Ile Gln Glu Ser Leu Thr Thr Thr Ser Thr Ala Leu Gly
268                               915                               920                               925
270 Lys Leu Gln Asp Val Val Asn Gln Asn Ala Gln Ala Leu Asn Thr Leu
271                               930                               935                               940
273 Val Lys Gln Leu Ser Ser Asn Phe Gly Ala Ile Ser Ser Val Leu Asn
274 945                               950                               955                               960
276 Asp Ile Leu Ser Arg Leu Asp Lys Val Glu Ala Glu Val Gln Ile Asp
277                               965                               970                               975
279 Arg Leu Ile Thr Gly Arg Leu Gln Ser Leu Gln Thr Tyr Val Thr Gln
280                               980                               985                               990
282 Gln Leu Ile Arg Ala Ala Glu Ile Arg Ala Ser Ala Asn Leu Ala Ala
283                               995                               1000                               1005
285 Thr Lys Met Ser Glu Cys Val Leu Gly Gln Ser Lys Arg Val Asp Phe
286 1010                               1015                               1020
288 Cys Gly Lys Gly Tyr His Leu Met Ser Phe Pro Gln Ala Ala Pro His
289 1025                               1030                               1035                               1040
291 Gly Val Val Phe Leu His Val Thr Tyr Ala Pro Ser Gln Glu Arg Asn
292                               1045                               1050                               1055
294 Phe Thr Thr Ala Pro Ala Ile Cys His Glu Gly Lys Ala Tyr Phe Pro
295                               1060                               1065                               1070
297 Arg Glu Gly Val Phe Val Phe Asn Gly Thr Ser Trp Phe Ile Thr Gln
298 1075                               1080                               1085
300 Arg Asn Phe Phe Ser Pro Gln Ile Ile Thr Thr Asp Asn Thr Phe Val
301 1090                               1095                               1100
303 Ser Gly Asn Cys Asp Val Val Ile Gly Ile Ile Asn Asn Thr Val Tyr
304 1105                               1110                               1115                               1120
306 Asp Pro Leu Gln Pro Glu Leu Asp Ser Phe Lys Glu Glu Leu Asp Lys
307                               1125                               1130                               1135
309 Tyr Phe Lys Asn His Thr Ser Pro Asp Val Asp Leu Gly Asp Ile Ser
310                               1140                               1145                               1150
312 Gly Ile Asn Ala Ser Val Val Asn Ile Gln Lys Glu Ile Asp Arg Leu
313                               1155                               1160                               1165
315 Asn Glu Val Ala Lys Asn Leu Asn Glu Ser Leu Ile Asp Leu Gln Glu
316 1170                               1175                               1180
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319 1185                               1190                               1195                               1200
321 Gly Phe Ile Ala Gly Leu Ile Ala Ile Val Met Val Thr Ile Leu Leu
322                               1205                               1210                               1215
324 Cys Cys Met Thr Ser Cys Cys Ser Cys Leu Lys Gly Ala Cys Ser Cys
325                               1220                               1225                               1230
327 Gly Ser Cys Cys Lys Phe Asp Glu Asp Asp Ser Glu Pro Val Leu Lys
328                               1235                               1240                               1245
330 Gly Val Lys Leu His Tyr Thr

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L:9 M:270 C: Current Application Number differs, Replaced Current Application Number

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date